

IN THE CLAIMS:

Please cancel claims 2, 3, 9, 12 and 20 and amend claims 1, 5, 11, 14, 18 and 19 to read as follows:

1. (Currently Amended) In a self-supporting, heliothermal flat collector module for use as a roof shingle, including:

- a self-supporting sheet metal panel having two sides and adapted to be irradiated by sunlight on one side, said sheet metal panel being formed with two opposing, angled edges to interlock with another sheet metal panel on a roof,
- a register-shaped arrangement of capillary tubes, separated from one another at a distance for the flow of a fluid medium, said arrangement being positioned on, and adhered to, the side opposite the side of the sheet metal panel to be irradiated, and
- a thermally-insulating, insulation core that is also positioned on the opposite side of the sheet metal panel to be irradiated,

the improvement wherein

- the surface of the insulation core is planar,
- the capillary tubes of the register-shaped arrangement are placed in contact with the planar surface of the insulation core,
- the insulation core is bonded to the sheet metal panel by means of a non-metallic, elastic adhesive layer, and
- the capillary tubes are at least partially embedded into the adhesive layer between the sheet metal panel and the insulation core, and
- the sheet metal panel is made of a titanium zinc alloy and is pre-weathered on the heat-absorbing side.

2. - 3. (Canceled).

4. (Previously Presented) Flat collector module as in Claim 1, wherein the insulation core comprises foam.

5. (Currently Amended) Flat collector module as in Claim 4, wherein the foam comprises is selected from the group consisting of foamed polystyrene or and polyurethane.

6. (Previously Presented) Flat collector module as in Claim 1, wherein insulation core comprises fibrous material.

7. (Previously Presented) Flat collector module as in Claim 1, wherein the material of the adhesive layer has a higher thermal-conductivity coefficient than the material of the insulation core.

8. (Previously Presented) Flat collector module as in Claim 1, wherein the adhesive layer is formed of an adhesive based on meth-acrylate.

9. (Canceled).

10. (Previously Presented) Flat collector module as in Claim 1, wherein the capillary tubes comprise a material selected from the group consisting of metal, peripherally metal-coated plastic, and of non-coated plastic.

11. (Currently Amended) Flat collector module as in Claim 1, wherein the planar surface of the insulation core includes numerous recesses to receive the adhesive.

12. (Canceled).

13. (Previously Presented) Flat collector module as in Claim 11, wherein the recesses are formed by the pressure of a bristle roller or similar device.

14. (Currently Amended) Flat collector module as in Claim 1, wherein the sheet metal panel is formed of one piece with two angled, and arc-shaped edge profiles at opposite edges.

15. (Canceled).

16. (Previously Presented) Flat collector module as in Claim 1, wherein the side of the insulation core facing away from the sheet metal panel is supported by a plate-shaped stiffening element.

17. (Previously Presented) Flat collector module as in Claim 1, wherein the insulation core is partially surrounded by a plastic or metal cassette.

18. (Currently Amended) Flat collector module as in Claim 17, wherein the metal cassette includes two opposing margins angled outwards so that an elastic body is positioned between the angled margin of the metal cassette.

19. (Currently Amended) Flat collector module as in Claim 18, wherein the elastic body is selected from the group consisting of a foam strip or and adhesive band.

20. (Canceled).

21. (Previously Presented) Flat collector module as in Claim 1, wherein the module possesses an overall thickness, including insulation core, in the range of 10 mm to 50 mm.

22. (Previously Presented) Flat collector module as in Claim 1, which is installed in a stair step roof, whose surface consists of sheet metal panels connected to one another.

23. (Previously Presented) Flat collector module as in Claim 1, wherein the module possesses an overall thickness, including insulation core, in the range of 25 mm to 35 mm.

24. (Previously Presented) Flat collector module as in claim 1, wherein the adhesive layer is made of a reaction adhesive.